Agenda Item No. 4

# RESTORATION COORDINATION PROGRAM
# MAY CONTRACT AMENDMENTS

During the past month, budget amendment requests have arisen on two proposals. These items were reviewed by the Ecosystem Roundtable and a being brought before Management Team for a final decision.

1. **Jepson Prairie Restoration**
   Issue: The Solano County Farmlands and Open Space Foundation was awarded $244,000 in State Proposition 204 funds to complete a habitat restoration project in the Jepson Prairie. The Foundation had requested $244,801 in funding; it appears that a clerical error was made when the award was announced. The Foundation has asked that the entire requested amount be appropriated.

   Staff recommendation: Concur with the Ecosystem Roundtable recommendation to restore full funding by increasing the budget by $801.

2. **Effects of Wetlands Restoration on Methyl Mercury Levels**
   Issue: UC Davis was awarded $530,617 in State Proposition 204 funds to complete a research project to determine the effect of wetlands restoration on methyl mercury concentrations in water. UCD has an opportunity to purchase a mercury analyzer and requests a budget amendment of $15,554. Purchase of this machine will allow hundreds more samples to be analyzed at a lower detection limit, leading to more robust result for this project.

   Background: This more efficient, semi-automated equipment will help accommodate the large numbers of total mercury analyses that will be generated by this project. Additionally, and perhaps most importantly, it will provide a significantly lower detection level and consistency/accuracy than UCD's manual cold vapor Atomic Absorption techniques, which have been fine tuned as much as possible in the university laboratory. UCD anticipates that some of the more important measures of inter-site mercury bioaccummulation from varied Delta sites may include small, low trophic level organisms that have relatively minute concentrations of mercury. Use of such indicators is often necessary to ensure that the sample in question unambiguously obtained its mercury load at the site where it was collected (and within a given time span). This is in contrast with more easily collected samples such as adult fish which, though containing far higher concentrations, could and typically have, accumulated their body burdens of mercury in numerous, varied locations and across wide spans of time. In order to provide meaningful future wetlands restoration management options, it is critical that UCD is able link the suite of environmental conditions that define each study site to the mercury production and biological uptake in corresponding samples.

Many hundreds of samples of sediment and small benthic organisms are anticipated to be collected and analyzed for mercury in this project. This will be a major component of the work and the detection level and low-concentration accuracy of the analyses will likely be an important consideration. UCD feels that the addition of this capability to the overall project will provide a significant improvement. In addition, the increase in efficiency alone will permit UCD to analyze dramatically more samples than UCD would be able to provide with its current capacity.

The equipment UCD seeks to purchase includes a Perkin Elmer Flow Injection Mercury System (FIMS 100), together with the required Controller Unit, and an Auto Sampler. If purchased new, the cost will be $23,260. Occasionally, high-quality, reconditioned demonstration units are available of the main FIMS 100 unit and/or the auto sampler unit. The Controller unit must be purchased new. UCD currently has access to a combination of new and reconditioned components that lowers the total price to $16,644. This may or may not remain an option in future months. Additionally, the project proponents have an agreement with UC Davis administration that the campus will provide a 1/3 match toward the purchase of this equipment. This will lower the CALFED request to $15,514, and as little as $11,102 if reconditioned components are available. With high quality mercury analyses typically costing over $100 per sample, the value of this equipment investment will be recovered with the first 100-150 Delta samples, allowing significantly more samples to be analyzed than originally proposed.

This equipment purchase was not initially budgeted into this project, only because it was instead planned for a larger, statewide CALFED mercury project. Though receiving high commendations, that proposal was not funded in the most recent round but is likely to be supported in some form in future rounds that include a water quality focus. Though the requested equipment will easily pay for itself during the current CALFED Delta project, it is entirely possible that it will also be utilized extensively in additional CALFED and CALFED-related mercury work.

Staff recommendation: Concur with the Ecosystem Roundtable recommendation to increase the budget by no more than $15,554 for the purchase of a mercury analyzer.